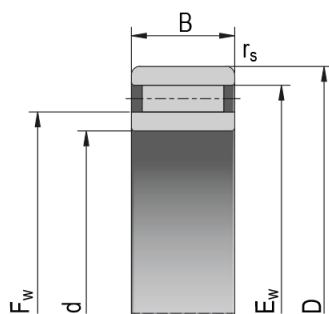
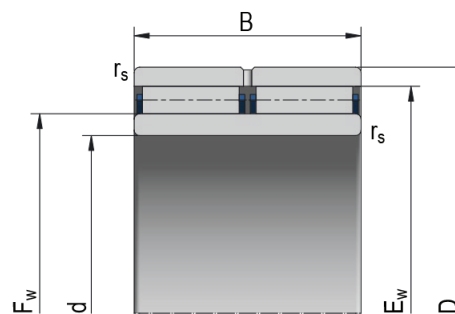


# Needle roller bearings without flanges



NAO



NAO

Bearing Designation

NAO 12x24x13

## Dimensions (mm)

d	12
D	24
B	13,0
F <sub>w</sub>	16,0
E <sub>w</sub>	20
r <sub>s min</sub>	0,30

s	0,50
d <sub>1</sub>	15,70
D <sub>1</sub>	16,40
d <sub>2</sub>	19,60
D <sub>2</sub>	20,30
r <sub>a max</sub>	0,30

## Basic Load Rating (kN)

C	8,90
C <sub>0</sub>	11,80

## Limiting Speed for Lubrication (min<sup>-1</sup>)

Oil	24000
-----	-------

Weight [g]

30,00